

REMARKS/ARGUMENTS

Applicant respectfully traverses and requests reconsideration.

The Examiner is thanked for the thorough examination and search of the subject.

All Claims are believed to be in condition for Allowance, and that is so requested.

Claims 1 and 18 have been amended.

Claims 20-72 have been canceled due to the Restriction requirement.

The making FINAL of the Restriction requirement is noted. Non-elected Claims 20-72 are hereby canceled. A divisional application will be filed to Claims 20-72 once the elected Claims are allowed.

Claims 1-19 stand rejected under 35 USC 102(e) as being anticipated by US 2004/02229224 to Dean et al. The Dean et al reference is drawn to conductive thermoplastics materials and antennas made from these materials. However, the Dean reference does not teach or suggest a feature of Applicant's claimed invention as recited in Amended Claim 1. In particular, Dean et al do not teach or suggest the feature of metal leads exposed by the encapsulating layer. In Dean et al, the combination of the encapsulating layer 33 and the antenna 34 completely encapsulates the circuit board 31 and electronic components 32. Further, no metal leads are exposed by or extend out from the encapsulating combination of the encapsulating layer 33 and the antenna 34. In this respect, the device 30 of Dean et al form a standalone device rather

than one that can be electrically/mechanically attached to a printed wiring board as is disclosed by the Applicant.

The distinctive feature of metal leads exposed by the combination of the encapsulating layer and the antenna is made clear in Amended Claim 1, which states:

1. (Currently Amended) An integrated circuit device comprising:

~~a chip carrier with~~ an integrated circuit die fixably attached to a substrate
~~said chip carrier~~ having metal leads; and
an encapsulating layer encapsulating said integrated circuit die and
5 substrate; and
an antenna structure molded onto ~~said chip carrier~~ said encapsulating
layer and comprising a conductive loaded, resin-based material comprising
conductive materials in a base resin host wherein said metal leads are exposed
by said encapsulating layer and said antenna structure.

This distinguishing feature is shown in Applicant's Figs. 1a and 1b and is described in the Specification on pages 20-22.

Therefore features of Applicant's claimed invention are not taught or suggested by Dean et al. Accordingly, independent Claim 1 should be allowable under 35 USC 102(e), and the dependent claims add additional novel and non-obvious subject matter and should likewise be allowable. If a rejection is maintained, Applicant respectfully requests a showing from the Examiner that Dean et al actually teach all the features of Applicant's claimed invention and, in particular, metal leads exposed by the combination of the encapsulating layer and the antenna.

Further, Applicant believes that U.S. Patent Application 2004/02229224 to Dean

et al should be removed as prior art for any potential rejections under 35 USC 103.

Applicant does not believe that U. S. Patent Application (2004/02229224) to Dean is prior art to the subject application under 35 USC 103 due to a **prior disclosure of the same subject matter of an antenna structure formed of conductive loaded, resin-based material by the Applicant in the present application**. In particular, the present application, serial number 10/823,099, is filed as a Continuation-in-Part of a parent US Patent Application, serial number 10/075,778, filed on February 14, 2002, and now issued as US Patent 6,741,221 to Aisenbrey. The parent application discloses:

“The conductive loaded resin-based materials comprise micron conductive powders or fibers loaded in a structural resin. The micron conductive powders are formed of metals such as nickel, copper, silver or the like. The micron conductive fibers can be nickel plated carbon fiber, stainless steel fiber, copper fiber, silver fiber, or the like. The structural material is a material such as a polymer resin. Structural material can be, here given as examples and not as an exhaustive list, polymer resins produced by GE PLASTICS, Pittsfield, MA, a range of other plastics produced by GE PLASTICS, Pittsfield, MA, a range of other plastics produced by other manufacturers, silicones produced by GE SILICONES, Waterford, NY, or other flexible resin-based rubber compounds produced by other manufacturers. The resin-based structural material loaded with micron conductive powders or fibers can be molded, using a method such as injection molding, overmolding, or extruded to the desired shape. The conductive loaded resin-based materials can be cut or milled as desired to

form the desired shape of the antenna elements. The composition of the composite materials can affect the antenna characteristics and must be properly controlled. The composite could also be in the family of polyesters with woven or webbed micron stainless steel fibers or other micron conductive fibers forming a cloth like material which, when properly designed in metal content and shape, can be used to realize a very high performance cloth antenna. Such a cloth antenna could be embedded in a persons clothing as well as in insulating materials such as rubber or plastic. The woven or webbed conductive cloths could also be laminated to materials such as Teflon, FR-4, or any resin-based hard material.”

(page 9 and 10)

In addition, the parent application further claims priority to a US Provisional Patent Application serial number 60/317,808, filed on September 7, 2001, which discloses:

“The essence of this invention is the use of conductive composites such as conductive fibers, powders, or concentrates and form shaping techniques such as injection molding or extrusion with structural materials to create antennas that include planar as well as conformal antennas, dipoles, monopoles plus patch antennas.

These antennas can readily be cut, milled, injection molded extruded to any shape or size, resulting in a more efficient and less costly antenna than what is commonly known as an antenna today. In addition, the shaped conductive composite antenna can be designed to be an integral fixture of the housing of a display device, i.e., PDA, Laptop casing, cell or

portable phone or any device needing an antenna.

The composite materials mentioned above include: All moldable or extrudable materials blended with nickel-plated carbon fiber, stainless steel fibers, copper and silver fibers or any other conductive fiber materials. Conductive filler powders and or concentrates may also be blended together in the end process. There are limits on the concentration (doping level) of conductor fibers, conductive powders, magnetic powders or conductive concentrates loaded with the structural materials. Limits are needed to assure performance as well as material integrity.” (page 1)

Based on the above, Applicant believes that the pertinent subject matter of antennas formed of conductive loaded resin-based material comprising conductive materials in a base resin is disclosed in the aforementioned parent application, now issued as for US Patent 6,741,221, filed February 14, 2002, and in the aforementioned provisional application, serial number 60/317,808, filed on September 7, 2001. As a result, **this subject matter of an antenna structure formed of conductive loaded, resin-based material was disclosed by the Applicant in the present application prior to the publication date of January 29, 2004, of U.S. Patent Application 2004/02229224 to Dean et al and prior to the filing date of February 1, 2003, of the provisional application 60/446,832 to which Dean claims priority.** Therefore, Applicant believes that U.S. Patent Application 2004/02229224 to Dean et al should be removed as prior art for any potential rejections under 35 USC 103.

Accordingly, Applicant respectfully submits that the claims are in condition for allowance and that a timely Notice of Allowance be issued in this case. The Examiner

is invited to contact the below listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Doug R. Schnabel".

Douglas R. Schnabel, Reg. No. 47,927